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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/501,467	07/14/2004	Klaus Schultes	252886US0PCT	3094
22850	7590	01/25/2006		
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER PENG, KUO LIANG	
			ART UNIT	PAPER NUMBER
			1712	

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/501,467	Applicant(s) SCHULTES ET AL.	
	Examiner Kuo-Liang Peng	Art Unit 1712	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/23/05 IDS.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☒ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>7/14/04, 5/23/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The Applicants' preliminary amendment filed on July 14, 2004 was received. Claims 1-25 are amended. Now, Claims 1-25 are pending.
2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because: There is a typographical error for the prior foreign application, "102 26 240.8" should read -- 102 36 240.8 --.

Claim Objections

3. Claims 16-17 and 22 are objected to because of the following informalities:

In Claims 16-17 (line 2), Applicants are advised to remove "use is made of" and amend other claim languages accordingly.

In Claim 22 (line 3), before "comprises", should there be -- further --?

Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Art Unit: 1712

5. Claims 4 and 13-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the monomers" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claims 13-14 recite the limitation "the vinyl groups" in line 2 of both claims. There is insufficient antecedent basis for this limitation in the claim.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an

Art Unit: 1712

invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 19 and 23 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claim 1 of copending Application No. 10/502,057. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the following reason: Claim 1 of the copending Application No. 10/502,057 is directed to an impact-resistant molding composition comprising a poly(meth)acrylate and at least one silicone rubber graft copolymer, which obviously reads on the impact-resistant molding composition set forth in the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

Art Unit: 1712

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 1-16, 18-20 and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Mautner (US 5 223 586).

For Claims 1-16, 18-20 and 23-24, Mautner discloses a silicone rubber graft copolymer with core-shell structure comprising a core a), a shell c) and optionally a shell b). The shell c) can be derived from acrylate and methacrylates. (col. 2, lines 34-61, col. 3, lines 58-68 and Examples) The temperature for preparing the shell is described in col. 5, line 50 to col. 6, line 43 and Examples. An initiator system comprising an initiator and a reducing agent and the amounts of the initiator is described in col. 6, lines 15-31 and Examples. The graft copolymer can be used to modify thermoplastics or for use as additives for polymer modification, such as polymethyl methacrylate, styrene-acrylonitrile copolymer, etc. (col. 6, line 62 to col. 7, line 3 and col. 10, line 22 to col. 11, line 26) The size of the graft copolymer is exemplified in Example 4, etc. The graft base can contain vinyl groups. (Examples) Mautner is silent on the specific process of preparing the graft copolymer set forth in the present invention. However, the instant claims are product-by-process claims. "Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the

Art Unit: 1712

product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process” In re Thorpe, 777 F. 2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985). For Claims 15-16, Mautner teaches a continuous process for making the graft copolymer. (col. 4, lines 50-62) For Claim 25, since Mautner’s composition is substantially the same as that of Applicants’, both should possess similar properties as set forth in the instant claim.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mautner in view of Ando (US 5 668 194).

Mautner discloses a process of preparing silicone rubber graft copolymer with core-shell structure comprising a core a), a shell c) and optionally a shell b), supra, which is incorporated herein by reference. Mautner further teaches the use of hydroperoxide as an initiator. The initiator system can also be a redox type. (col. 6, lines 15-43) Mautner is silent on the specific use of butyl hydroperoxide as an initiator. However, it is common to use butyl hydroperoxide as an initiator in redox catalyst system. For example, Ando teaches the use of butyl hydroperoxide in an emulsion of redox type. The motivation of using the butyl hydroperoxide is to afford a catalyst system that can initiate the polymerization at a lower temperature. (col. 7, lines 1-12) In light of the benefit mentioned, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize the butyl hydroperoxide as a catalyst in Mautner's process.

12. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mautner.

Mautner discloses a composition comprising a polymer such as a poly(meth)acrylate or a styrene-acrylonitrile copolymer and a silicone rubber graft copolymer with core-shell structure comprising a core a), a shell c) and optionally a shell b), supra, which is incorporated herein by reference. Mautner is silent on

Art Unit: 1712

the specific composition of the styrene-acrylonitrile copolymer. However, the relative amounts of the styrene, acrylonitrile and other monomers will affect the final properties of the copolymer. For example, an increase of the acrylonitrile amount will typically enhance the oil resistance of the copolymer. In other words, the relative amounts of the monomers in the copolymer are Result-Effective variables. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to utilize a copolymer with whatever relative amounts of the monomers through routine experimentation in order to obtain a copolymer with desired properties. Especially, Applicants do not show the criticality of the monomer relative amounts. See MPEP 2144.05 (II).

13. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mautner in view of Lau (US 6 670 419).

Mautner discloses a composition comprising a polymer such as a poly(meth)acrylate or a styrene-acrylonitrile copolymer and a silicone rubber graft copolymer with core-shell structure comprising a core a), a shell c) and optionally a shell b), supra, which is incorporated herein by reference. Mautner is silent on the use of an acrylate-rubber-based impact modifier. However, an acrylate-rubber-based impact modifier is known as an additive in a polymer composition. For

Art Unit: 1712

example, Lau teaches the use of an acrylate-rubber-based impact modifier in a composition comprising a polymer such as a poly(meth)acrylate, a styrene-acrylonitrile copolymer, etc. The motivation of using the acrylate-rubber-based impact modifier is to enhance the impact resistance of the composition. (col. 3, lines 25-35 and col. 23, lines 40-53) Since Lau's acrylate-rubber-based impact modifier can be used in a composition comprising poly(meth)acrylate or a styrene-acrylonitrile copolymer, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to further incorporate Lau's acrylate-rubber-based impact modifier into Mautner's composition. See MPEP 2144.06.


14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kuo-Liang Peng whose telephone number is (571) 272-1091. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski, can be reached on (571) 272-1302. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1712

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

klp
January 20, 2006



Kuo-Liang Peng
Primary Examiner
Art Unit 1712